

RANGE EXTENSIONS OF CAREX IN MINNESOTA

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During the winter of 1974 an examination of the distribution of the genus *Carex* in Minnesota was begun. The Minnesota *Carex* distribution maps on file at the University Herbarium were examined; these distributions were then compared with published accounts of *Carex* distribution in the surrounding states and Canadian provinces. It quickly became apparent that it was highly probable that several species of *Carex* remained to be discovered in Minnesota. This article deals with three *Carex* taxa that frequent the floodplains of southeastern and east-central Minnesota which previously had not been reported from the state, as well as a species of *Carex* which frequents the same floodplains but which had not been collected in Minnesota since 1885. Under "Representative Collections" cited at the end of this report, the letter W refers to those specimens collected by the writer; O & W indicates specimens collected jointly with Prof. Gerald B. Ownbey; S indicates specimens placed at the disposal of the writer by Mr. Steven Swanson, a student at the University of Wisconsin, LaCrosse. All specimens cited are deposited in the University of Minnesota Herbarium (MIN).

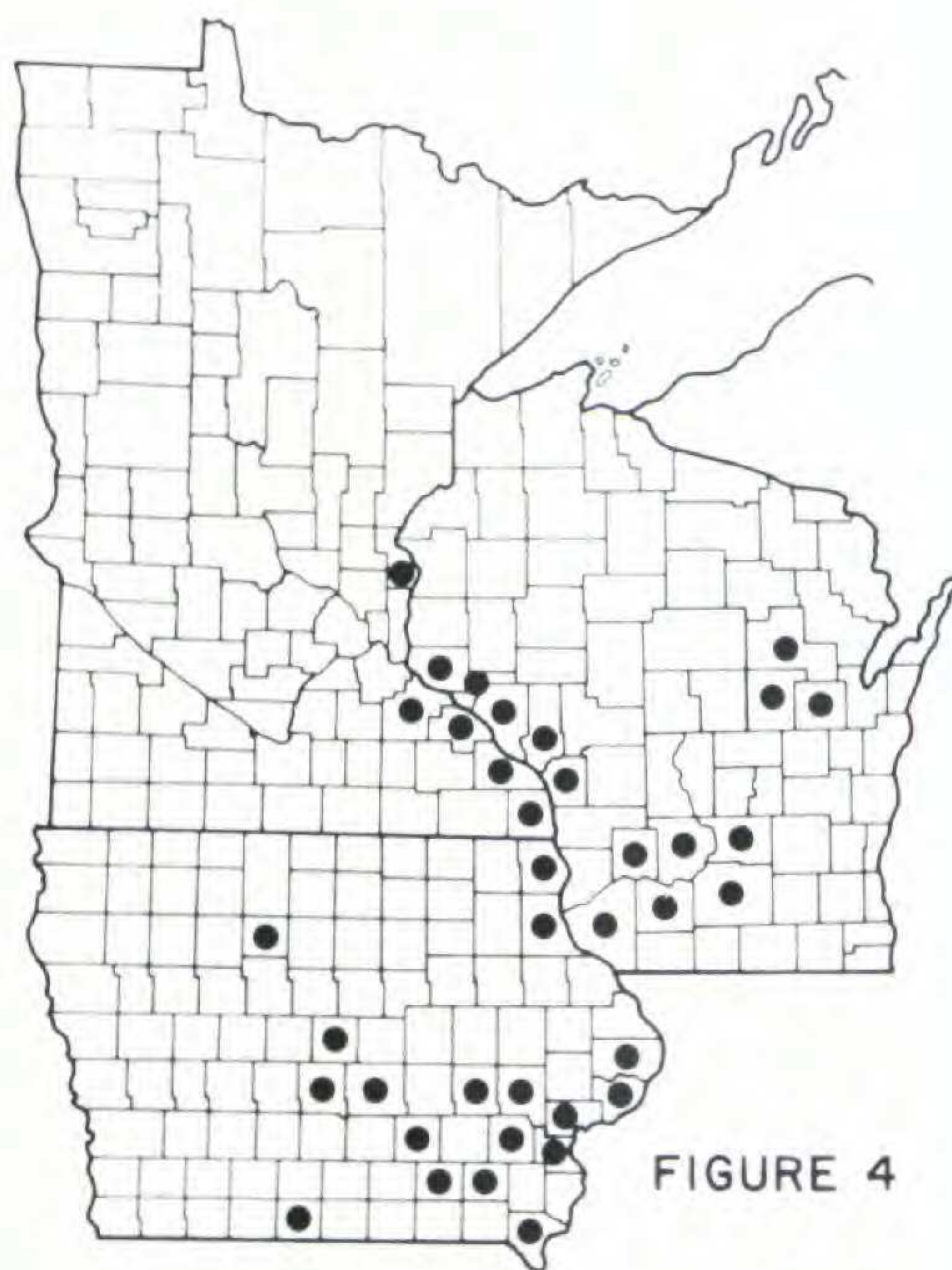
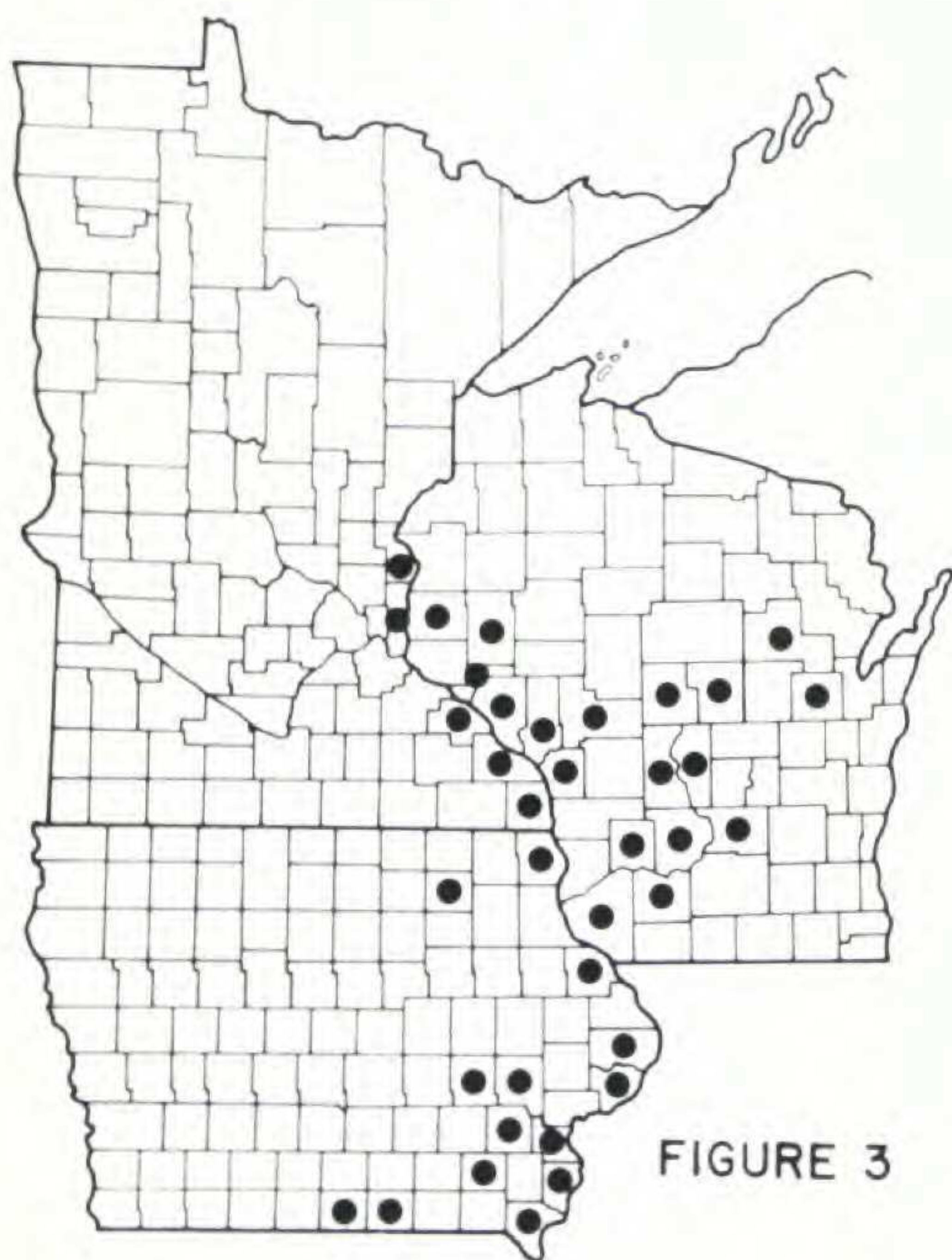
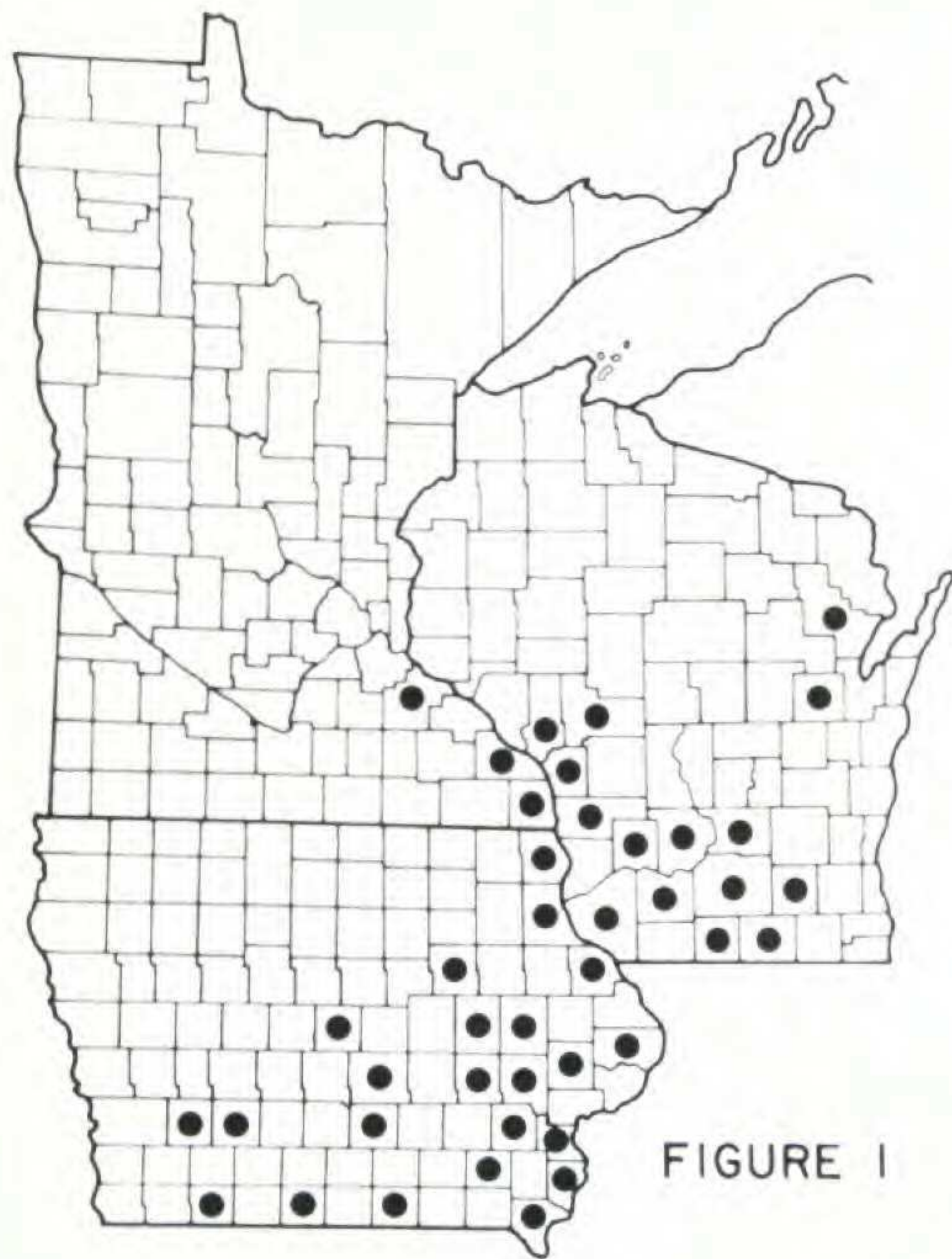
Although the species was reported by Mackenzie (1935) for Wisconsin and Iowa, the finding of *Carex grayi* Carey in Minnesota represents an extension of the known range. During the 1975-1977 field seasons, this species was collected in floodplain woods bordering the Mississippi River at scattered locations in Houston, Winona, and Goodhue counties. Based on the presently known distribution of this species, the station in northern Goodhue County represents the northwesternmost site for it in the United States (Fernald, 1942) and Canada (Reznicek, 1974).

Fernald (1942) reported *Carex grayi* Carey var. *hispidula* Gray as occurring both in Wisconsin and Iowa, but not in Minnesota. In September, 1976, the writer collected this plant in a floodplain woods bordering the Mississippi River near Read's Landing in eastern Wabasha County. Of the thirty or more plants observed at this location, all had very hispidulous perigynia; no glabrous plants of *C. grayi* were found at this station.

Although *Carex typhina* Michx. was reported for both Wisconsin and Iowa, Mackenzie (1935) did not include Minnesota within the species range. A specimen of this species was collected by J. M. Holzinger in October, 1900, but misidentified by him as *C. retrorsa* Schwein. It was correctly identified as *C. typhina* by Dr. J. H. Zimmerman, University of Wisconsin, in 1963. The specimen label states only that the plant was collected on the Mississippi River bottoms in Winona County. Prior to 1976, this was the only Minnesota specimen of this species in the University Herbarium. In August, 1976, Prof. Ownbey and the writer collected *C. typhina* in a floodplain woods bordering the Mississippi River about 2.5 miles south of Reno in Houston County and also from a floodplain woods near LaCrescent, Houston County. Subsequently, the writer found this species about 3.5 miles south of Franconia in southeastern Chisago County. As far as can be determined, the latter location represents the northwesternmost site for this species in the United States and Canada (Fernald, 1970).

Prior to 1976, *Carex muskingumensis* Schwein. was represented by a single specimen from Minnesota in the University Herbarium. The specimen was collected by J. H. Sandberg in June, 1885, in a meadow near Center City, Chisago County, and identified by him as *C. arida* Schwein. and Torr. At a later date the specimen was examined by K. K. Mackenzie and annotated to *C. muskingumensis*. Minnesota was included within the geographical range of the species by Mackenzie (1935) apparently on the basis of this record. In 1976 this species was found at several localities along the wooded floodplains of the Mississippi River from Houston to Goodhue counties. Evidently it has been overlooked for several years because of lack of intensive collecting in its special habitat. It is interesting to note that efforts made during the past two years to recollect *C. muskingumensis* at Sandberg's original site in Chisago County have failed.

Distribution maps show the distribution, by county, of each of the four above discussed *Carex* taxa in Minnesota, Wisconsin, and Iowa. Specimens deposited at the University of Wisconsin, University of Iowa and Iowa State University, as well as those at the University of Minnesota, were utilized in the preparation of the maps.



Carex distributions, by county, in Minnesota, Wisconsin, and Iowa.

Figures 1-4. 1, *Carex grayi*; 2, *Carex grayi* var. *hispidula*; 3, *Carex typhina*; 4, *Carex muskingumensis*.

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REPRESENTATIVE COLLECTIONS

CAREX GRAYI Carey. **Goodhue Co.:** 4.5 mi. WNW of Red Wing, T113N, R15W, Sec. 19, *W*1145. **Houston Co.:** Navigation Pool No. 8 on the Mississippi River, Site 31, *S* 835; Rte. 26, 1.3 mi. N. of Iowa Border, *O* & *W* 5327; just north of U.S. 14, 16, and 61 at LaCrescent, *O* & *W* 5384. **Winona Co.:** 5 mi. S. of John A. Latsch State Park on U.S. 61, T108N, R8W, Sec. 34, *W* 846.

CAREX GRAYI Carey var. HISPIDULA Gray. **Wabasha Co.:** 0.25 mi. E. of Read's Landing, T111N, R11W, Sec. 24, *W*976.

CAREX TYPHINA Michx. **Chisago Co.:** just N. of Rte. 243, 0.5 mi. E. of the jct. of Rte. 95 and Rte. 243, T33N, R19W, Sec. 28, *W* 934. **Houston Co.:** Rte. 26, 2.6 mi. S. of its jct. with Rte. 249 (to Caledonia), *O* & *W* 5356; just N. of U.S. 14, 16, and 61 at LaCrescent, *O* & *W* 5374. **Wabasha Co.:** 0.25 mi. E. of Read's Landing, T111N, R11W, Sec. 24, *W* 978. **Washington Co.:** 3 mi. S. of Marine on the St. Croix, *W* 960. **Winona Co.:** Mississippi River bottoms, *Holzinger, s.n.*, October, 1900.

CAREX MUSKINGUMENSIS Schwein. **Chisago Co.:** Center City, meadows, *Sandberg, s.n.*, June, 1885. **Goodhue Co.:** 0.25 mi. N. of the Red Wing City Park, *W* 893. **Houston Co.:** 3.5 mi. S. of LaCrescent, *W* 834; Rte. 26, 1.3 mi. N. of Iowa border, *O* & *W* 5342; Rte. 26, 2.6 mi. S. of its jct. with Rte. 249 (to Caledonia), *O* & *W* 5359; just N. of U.S. 14, 16, and 61 at LaCrescent, *O* & *W* 5381. **Wabasha Co.:** 0.25 mi. E. of Read's Landing, T111N, R11W, Sec. 24, *W* 977. **Winona Co.:** 5 mi. S. of John A. Latsch State Park on U.S. 61, T108N, R8W, Sec. 34, *W* 845; U.S. 61, 1.1 mi. N. of its jct. with Rte. 248 at Minnesota City, *O* & *W* 5392.

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